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<110> IZUI, MASAKO
       SUGIMOTO, MASAKAZU
       KURAHASHI, OSAMU
       NAKAMATSU, TSUYOSHI

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<141> 2002-01-02

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gtg ctc aaa gac acc aag gat gtg gat cgc caa agt ctg gat gat gat      3922
Val Leu Lys Asp Thr Lys Asp Val Asp Arg Gln Ser Leu Asp Asp Asp
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Val Gly Pro Gly Asp Val Asp His Val Phe Lys Glu Leu Asp Asp Ala
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acc tcc aaa gac atc gct gtg tcc aca gag cag ctc aaa gat gtt gtg    4066
Thr Ser Lys Asp Ile Ala Val Ser Thr Glu Gln Leu Lys Asp Val Val
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gct aac aac gcc aac tgg ttc agc cgt gct gtg aag gta ttg gcg gac    4114
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Ile Phe Val Pro Leu Ile Pro Ile Leu Val Gly Gly Gly Leu Leu Met
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Ala Ile Asn Asn Val Leu Val Ala Gln Asp Leu Phe Gly Pro Gln Ser
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Leu Val Glu Met Phe Pro Gln Ile Ser Gly Val Ala Glu Met Ile Asn
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ctg atg gca tct gcg ccg ttc gcg ttc ttg cca gtg ttg gtt ggt ttc    4306
Leu Met Ala Ser Ala Pro Phe Ala Phe Leu Pro Val Leu Val Gly Phe
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acc gca acc aag cgt ttc ggt ggc aat gag ttc ctg ggc gcc ggc att    4354
Thr Ala Thr Lys Arg Phe Gly Gly Asn Glu Phe Leu Gly Ala Gly Ile
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Gly Met Ala Met Val Phe Pro Thr Leu Val Asn Gly Tyr Asp Val Ala
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Val Ser Trp Ile Leu Ala Thr Ile Glu Lys Phe Leu His Lys Arg Leu
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Met Gly Thr Ala Asp Phe Leu Ile Thr Pro Val Leu Thr Leu Leu Leu
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4

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Pro Val Gly Gly Leu Leu Phe Gly Leu Val Tyr Ser Pro Ile Val Ile
305                 310                315                320

act ggt ctg cac cag tcc ttc ccg cca att gag ctg gag ctg ttc aac        4786
Thr Gly Leu His Gln Ser Phe Pro Pro Ile Glu Leu Glu Leu Phe Asn
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cag ggt gga tcc ttc atc ttc gca acc gca tcc atg gcc aat atc gcg        4834
Gln Gly Gly Ser Phe Ile Phe Ala Thr Ala Ser Met Ala Asn Ile Ala
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cag ggt gca gca tgt ttg gca gtg ttc ttc cta gcg aag agt gaa aag        4882
Gln Gly Ala Ala Cys Leu Ala Val Phe Phe Leu Ala Lys Ser Glu Lys
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ctc aag ggc ctt gca ggt gct tca ggt gtc tcc gct gtt ctt ggt att        4930
Leu Lys Gly Leu Ala Gly Ala Ser Gly Val Ser Ala Val Leu Gly Ile
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aca gag cct gcg atc ttc ggt gtg aac ctt cgc ctg cgc tgg ccg ttc        4978
Thr Glu Pro Ala Ile Phe Gly Val Asn Leu Arg Leu Arg Trp Pro Phe
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tac att ggt atc ggt acc gca gct atc ggt ggc gct ttg att gca ctc        5026
Tyr Ile Gly Ile Gly Thr Ala Ala Ile Gly Gly Ala Leu Ile Ala Leu
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ttt gat atc aag gca gtt gcg ttg ggc gct gca ggt ttc ttg ggt gtt        5074
Phe Asp Ile Lys Ala Val Ala Leu Gly Ala Ala Gly Phe Leu Gly Val
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Val Ser Ile Asp Ala Pro Asp Met Val Met Phe Leu Val Cys Ala Val
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Val Thr Phe Val Ile Ala Phe Gly Ala Ala Ile Ala Tyr Gly Leu Tyr
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Leu Val Arg Arg Asn Gly Ser Ile Asp Pro Asp Ala Thr Ala Ala Pro
465                470                475                480

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Val Pro Ala Gly Thr Thr Lys Ala Glu Ala Glu Ala Pro Ala Glu Phe
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5

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Ser Gly Val Ala Ile Val Pro Thr Lys Gly Gln Leu Val Ser Pro Val
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Ser Gly Lys Ile Val Val Ala Phe Pro Ser Gly His Ala Phe Ala Val
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cgc act aag gct gag gat ggt tcc aat gtg gat atc ttg atg cac att      5506
Arg Thr Lys Ala Glu Asp Gly Ser Asn Val Asp Ile Leu Met His Ile
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Gly Phe Asp Thr Val Asn Leu Asn Gly Thr His Phe Asn Pro Leu Lys
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aag cag ggc gat gaa gtc aaa gca ggg gag ctg ctg tgt gaa ttc gat      5602
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Val Ser Asn Tyr Lys Lys Thr Gly Pro Val Asn Thr Tyr Gly Leu Gly
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Val Pro Ala Thr Pro
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Val Gly Pro Gly Asp Val Asp His Val Phe Lys Glu Leu Asp Asp Ala
65   70   75   80

Thr Ser Lys Asp Ile Ala Val Ser Thr Glu Gln Leu Lys Asp Val Val
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Ala Asn Asn Ala Asn Trp Phe Ser Arg Ala Val Lys Val Leu Ala Asp
            100   105   110

Ile Phe Val Pro Leu Ile Pro Ile Leu Val Gly Gly Gly Leu Leu Met
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Ala Ile Asn Asn Val Leu Val Ala Gln Asp Leu Phe Gly Pro Gln Ser
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Leu Met Ala Ser Ala Pro Phe Ala Phe Leu Pro Val Leu Val Gly Phe
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Thr Ala Thr Lys Arg Phe Gly Gly Asn Glu Phe Leu Gly Ala Gly Ile
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Gly Met Ala Met Val Phe Pro Thr Leu Val Asn Gly Tyr Asp Val Ala
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Ala Thr Met Thr Ala Gly Glu Met Pro Met Trp Ser Leu Phe Gly Leu
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Asp Val Ala Gln Ala Gly Tyr Gln Gly Thr Val Leu Pro Val Leu Val
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7

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Met Gly Thr Ala Asp Phe Leu Ile Thr Pro Val Leu Thr Leu Leu Leu
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Gly Asp Leu Leu Ala His Gly Leu Gln Gly Leu Tyr Asp Phe Gly Gly
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Pro Val Gly Gly Leu Leu Phe Gly Leu Val Tyr Ser Pro Ile Val Ile
305   310   315   320

Thr Gly Leu His Gln Ser Phe Pro Pro Ile Glu Leu Glu Leu Phe Asn
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Gln Gly Gly Ser Phe Ile Phe Ala Thr Ala Ser Met Ala Asn Ile Ala
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Tyr Ile Gly Ile Gly Thr Ala Ala Ile Gly Gly Ala Leu Ile Ala Leu
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Phe Asp Ile Lys Ala Val Ala Leu Gly Ala Ala Gly Phe Leu Gly Val
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Val Ser Ile Asp Ala Pro Asp Met Val Met Phe Leu Val Cys Ala Val
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Val Thr Phe Val Ile Ala Phe Gly Ala Ala Ile Ala Tyr Gly Leu Tyr
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8

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Val Pro Ala Gly Thr Thr Lys Ala Glu Ala Glu Ala Pro Ala Glu Phe
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Ser Asn Asp Ser Thr Ile Ile Gln Ala Pro Leu Thr Gly Glu Ala Ile
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Ala Leu Ser Ser Val Ser Asp Ala Met Phe Ala Ser Gly Lys Leu Gly
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Ser Gly Lys Ile Val Val Ala Phe Pro Ser Gly His Ala Phe Ala Val
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Arg Thr Lys Ala Glu Asp Gly Ser Asn Val Asp Ile Leu Met His Ile
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Gly Phe Asp Thr Val Asn Leu Asn Gly Thr His Phe Asn Pro Leu Lys
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Lys Gln Gly Asp Glu Val Lys Ala Gly Glu Leu Leu Cys Glu Phe Asp
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Ile Asp Ala Ile Lys Ala Ala Gly Tyr Glu Val Thr Thr Pro Ile Val
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Val Ser Asn Tyr Lys Lys Thr Gly Pro Val Asn Thr Tyr Gly Leu Gly
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